

Environmental Division's
Satellite Accumulation Point
Operations Course
Instructor: Allen Gilbert
798-9763





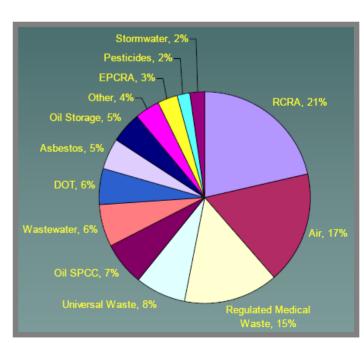
What is the Resource Conservation and Recovery Act (RCRA)?

Defines what is a hazardous waste.

Provide rules on how to manage hazardous waste (from cradle-to-grave).

Specify what persons are covered by these regulations.

- Fort Campbell is a prime target location for regulators due to the large amount of sites for them to inspect.
- The number one RCRA violation found is open containers.
- RCRA violations are levied at \$32,500.00 per violation, per day.





**Generator** means any person, by site, whose act or process produces hazardous waste identified or listed in Part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation. **Note:** Waste generated by contractors working at a facility is considered by EPA to have been generated by that site. EPA holds all parties liable for proper management of the waste.

Contact the Hazardous Waste Program Manager to make a definitive hazardous waste determination. Assume that all chemical wastes are hazardous until a definitive determination can be made. This includes low concentration wastes or chemicals where you are unsure of the properties. The Hazardous Waste Program Manager makes determinations by chemical analysis or generator knowledge (MSDS) of the product.



### **Chemical Analysis**

#### ANALYTICAL REPORT

POLLUTION PREVENTION CENTER 9583 PWBC ENV DIV. ALLEN GILBERT

13 1/2 & INDIANA, BLDG. 2186 FT. CAMPBELL, KY 42223-5130

Project: 5041201

Project Name: S041201CAAFB7156PAINTB00

Sampler: ALLEN GILBERT

Lab Number: 04-A187203

Sample ID: S041201 D/SANDBLAST MEDI

Sample Type: Solid waste Site ID:

Date Collected:

Time Collected: 9:15 Date Received: 12/ 1/04 Time Received: 8:00

TCLP Results										
			Report	Reg	D4.1					
Analyte	Result	Units	Limit	Limit	Factor	Date	Time	Analyst	Method	Batch
Arsenic, TCLP	ND	mq/1	0.100	5.0	1	12/ 2/04	12:25	K. Ahmed	60108	5633
Barium, TCLP	2.49	mq/1	1.00	100	1	12/ 2/04	12:25	K. Ahned	60108	5633
Cadmium, TCLP	66.4	mg/l	0.100	1.0	1	12/ 2/04	12:25	K. Ahned	60108	5633
Chronium, TCLP	56.6	mg/1	0.500	5.0	1	12/ 2/04	12:25	K. Ahned	60108	5633
Lead, TCLP	ND	mq/1	0.500	5.0	1	12/ 2/04	12:25	K. Ahned	60108	5633
Mercury, TCLP	ND	mq/1	0.0100	0.2	1	12/ 4/04	12:37	K. Keller	7470A	7301
Selenium, TCLP	ND	mq/1	0.100	1.0	1	12/ 2/04	12:25	K. Ahned	60108	5633
Silver, TCLP	ND	mg/l	0.100	5.0	1	12/ 2/04	12:25	K. Ahned	60108	5633

Sample Extraction Data

	Wt/Vol					
Parameter	Extracted	Extract Vol	Date	Time	Analyst	Method
	*-Inia		*** ****	14.15	B. Minne	4004

#### LABORATORY COMMENTS:

ND = Not detected at the report limit.

B = Analyte was detected in the method blank.

J = Estimated Value below Report Limit.

E = Estimated Value above the calibration limit of the instrument.

# = Recovery outside Laboratory historical or method prescribed limits.

All results reported on a wet weight basis.

#### ANALYTICAL REPORT

POLIUTION PREVENTION CENTER 9583 PWBC ENV DIV. ALLEN GILBERT 13 1/2 & INDIANA, BLDG. 2186

FT. CAMPBELL, KY 42223-5130

Project: S041201

Tetrachlorcethene

Trichloroethene

Vinyl Chloride

Project Name: S041201CAAFB7156PAINTB00

Sampler: ALLEN GILBERT

Lab Number: 04-A187201

Sample ID: S041201 B/PAINT THINNER

Sample Type: Solid waste

Site ID:

Date Collected:

Time Collected: 8:55 Date Received: 12/ 1/04

12/ 3/04 1:24 S. Udeze

12/ 3/04 1:24 S. Udeze

5825

Time Received: 8:00

			Report	Quan	Di.1					
Analyte	Result	Units	Limit	Linit	Factor	Date	Time	Analyst	Method	Batc
*GENERAL CHEMISTRY PARAMET Flash Point, Closed Cup	Flashed 8 F	loom Temp.				12/ 6/04	9:00	T. Beverly	1010	909
PCLP Results										
Inalyte	Result	Units	Report	Reg Limit	Dil Factor	Date	Time	Analyst	Method	Batc
contyce	Result		Linit	Linic	ractor	Date	1100	warther	Method	Bacc
Arsenic, TCLP	ND	mg/1	0.100	5.0	1	12/ 2/04	12:25	K. Ahned	60108	563
Barium, TCLP	ND	mg/l	1.00	100	1	12/ 2/04	12:25	K. Ahmed	60108	563
Cadmium, TCLP	ND	mg/l	0.100	1.0	1	12/ 2/04	12:25	K. Ahmed	60108	563
Chromium, TCLP	33.8	mg/l	0.500	5.0	1	12/ 2/04	12:25	K. Ahned	60108	563
Lead, TCLP	ND	mg/l	0.500	5.0	1	12/ 2/04	12:25	K. Ahmed	60108	563
Mercury, TCLP	0.120	mg/l	0.0100	0.2	1	12/ 4/04	12:37	K. Keller	7470A	730
Selenium, TCLP	4-40	mg/l	0.100	1.0	1	12/ 2/04	12:25	K. Ahmed	60108	563
Silver, TCLF	ND	mg/l	0.100	5.0	1	12/ 2/04	12:25	K. Ahned	60108	563
Benzene	2.60	mg/l	1.00	0.5	500	12/ 3/04	1:24	S. Udeze	8260	582
Carbon tetrachloride	ND	mg/l	1.00	0.5	500	12/ 3/04	1:24	S. Udeze	8260	582
Chlorobenzene	ND	mg/l	1.00	100	500	12/ 3/04	1:24	S. Udeze	8260	582
Chloroform	ND	mg/l	1.00	6.0	500	12/ 3/04	1:24	S. Udeze	8260	582
1,2-Dichloroethane	ND	mg/l	1.00	0.5	500	12/ 3/04	1:24	S. Udeze	8260	582
1,1-Dichloroethene	ND	mg/l	1.00	0.7	500	12/ 3/04	1:24	S. Udeze	8260	582
Methylethylketone	67800	mg/l	2000	200	200000	12/ 9/04	11:06	S. Udeze	8260	230



### **Environmental Division's responsibility**

- Develop and implement an overall SAP management program to ensure compliance with Federal, State, and Fort Campbell hazardous waste regulations.
- Provide training, guidance, and assistance to units, directorates, and tenants EQO's on proper SAP management.
- Inspect all sites on a monthly basis (Unannounced)



### **Unit/activities responsibilities**

- Ultimately the responsibility is the Commander's.
- Assure all SAP operators are trained by the Environmental Division.
- To ensure regulatory compliance.
- Weekly inspection of your sites.



<u>Solid Waste</u>: "any garbage, refuse, sludge... and other discarded material, including solid, liquid, semisolid, or contained gaseous material which is abandoned, recycled, and inherently waste-like.

<u>Hazardous Waste</u>: Must be a solid waste, listed in 40 CFR Part 261, Subpart D. Must be a listed waste or exhibit at least one <u>characteristic</u> in 40 CFR Part 261, Subpart C as follows:

#### **Ignitable**



 $< 140^{\circ}F$ 

Flammable liquids
Oxidizers
Organic peroxides
Ignitable compressed
gases

#### Corrosive



 $pH \le 2 \ge 12.5$ 

Inorganic acids Organic acids Bases

#### Reactive



Unstable/undergo violent change

Sulfides and cyanides Peroxide formers Alkali metals Dinitro – and trinitro – compounds

#### **Toxic**



Acute oral, dermal, or inhalation LC/LD

8 Heavy metals10 Pesticides22 Organic chemicals





<u>Satellite Accumulation Points</u>: (SAP's) are <u>remote locations</u> where waste is being <u>generated at, or near, the point of generation</u> and <u>under the control to the operator</u>. SAP's are volume driven and not regulated by time during storage of the hazardous waste that is being accumulated.

90-Day Accumulation Point: Storage areas are time driven and do not regulated by the volume of hazardous waste stored. A specific hazardous/universal waste that is being accumulated must be disposed of within 90 days. The Environmental Division's PPOC is the only authorized 90-day site on Fort Campbell.





### **RCRA INSPECTION PROGRAM**

A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste. 40 CFR §265.34(c)(1).

Complies with §265.171, §265.172, and §265.173(a) of this chapter. 40 CFR 265.34(c)(1)(i). In good condition/not leaking. 40 CFR §265.171. Compatible with waste storage. 40 CFR §265.172. Closed except when necessary to add or remove waste. 40 CFR §265.173(a).

Marks his/her container either with the words "Hazardous Waste" or with other words that identify the contents of the containers. 40 CFR §265.34(c)(1)(ii).

The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess began to accumulating. 40 CFR §265.34(c)(2). Do not date the label—use piece of tape.

Generators

40 CFR §265.34

#### SATELLITE ACCUMULATION (At full-size and small quantity generators)

(c)(1) A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in §261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) of this section provided he/she:



(i) Complies with §265.171, §265.172, and §265.173(a) of this chapter; and

#### Editor's Note:

Container must be:

§265.171 = in good condition/not leaking. §265.172 = compatible with waste storage. §265.173(a) = closed except when necessary to add or remove waste. WHAT ARE THE RULES?

- (ii) Marks his/her container either with the words "Hazardous Waste" or with other words that identify the contents of the containers.
- (2) A generator who accumulates either hazardous waste or acutely hazardous waste listed in §261.33(e) in excess of the amounts listed in paragraph (c)(1) of this section at or near any point of generation must, with respect to that amount of excess waste, comply within three days with paragraph (a) of this section or other applicable provisions of this chapter. During the three day period the generator must continue to comply with paragraphs (c)(1)(i)-(ii) of this section. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess began to accumulation.

#### Editor's Note:

The air emission requirements for containers in 40 CFR 265 Subpart CC do not apply to hazardous waste being accumulated in satellite accumulation areas.





### **Correct Labeling and Marking**

### Hazardous Waste Label



### Universal Waste Label

UNIVERSAL
WASTE
CONTENTS
ACCUMULATION START DATE
SHIPPER
ADDRESS
CITY, STATE, ZIP

### **WRITTEN**

Fill date when full on tape.
Hazardous Waste
or
<b>Universal Waste</b>
with
Contents

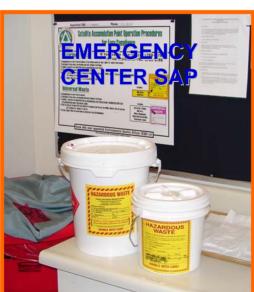




### **RCRA INSPECTION PROGRAM**



Examples of various SAP sites









### **RCRA INSPECTION PROGRAM**

<u>Accumulation at the SAP</u>. Are like wastes stored together (<u>No mixing; proper segregation</u>)? RCRA Mixture Rule.

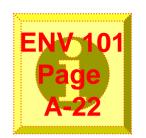
#### **Best Management Plan (BMP) and OSHA**

The storage area must be marked "Satellite Accumulation Point." A poster is provided for easy compliance. The poster is also a <u>training</u> tool for new personnel. Annual training is required by 29 CFR (OSHA).

Is a fire-extinguisher located in proximity to the SAP? Is it the right type?
Is it charged?
Is the inspection tag up-to-date?
Is the seal in place?







#### **ENVIRONMENTAL HANDBOOK**

#### Fluorescent Tubes and Mercury-Containing Lamps

#### POSSIBLE AREAS OF CONCERN

Small quantities of mercury, antimony, cadmium, barium, and lead are used to manufacture fluorescent bulbs and mercury vapor lamps.

#### CHARACTERIZATION

All used lamps including fluorescent bulbs and mercury-containing lamps are universal wastes.

#### CONTAINER MARKING AND HANDLING PROCEDURES

- Step 1 Place used fluorescent tubes in the original container or shipping box provided. Box must be able to be closed (do not cut end out of box).
- Step 2 a. Label the box with "Universal Waste".
  b. Date the box with the date the first used lamp is put in the box/container (used bulbs should not be maintained in area longer than 6 months).
- Step 3 Always close container after adding bulb/lamp.
- Step 4 Transport used bulbs to the appropriate consolidation points for your unit/activity:
  - Troop Self Help (Bldg 862, Bastogne Ave & 14th St
  - AAFES Main Exchange (for AAFES facilities only) Bldg 2840, Bastogne Ave
  - 160th SOAR Boeing Sikorsky Bldg 7281
  - Blanchfield Army Community Hospital (BACH) Bldg 650 Joel Drive
  - Ft Campbell Dependent Schools for schools only Bldg 1110, Falcon Loop



Fluorescent tubes boxed, labeled and

NOTE: Troop Self Help will issue one for one exchange of bulbs. Do Not Purchase Fluorescent tubes/lights on Government credit card (GPC).

#### PROTECTIVE MASK FILTERS M17/M17A1/ M40/M40A1/M42

#### POSSIBLE AREAS OF CONCERN

The protective mask filters that contain ASC Whetlerite charcoal contain heavy metal chemical compounds (Chromium 6) and triethylenedamine.

#### CHARACTERIZATION

If these masks are equipped with the C2 (black body) ASC Whetlerized charcoal-filled canister NSN 4240-01-119-2315 or NSN 4240-21-871-7842, remove the C2 canister and manage as a hazardous waste-chromium. For those M40/M42 series masks containing the C2A1 (green body) ASZM TEDA charcoal-filled canister, NSN 4240-01-361-1319, remove the canister and collect separately from the black filters.

#### CONTAINER MARKING AND HANDLING PROCEDURES

- Step 1 Contact Environmental Division Hazardous Waste to establish a Satellite Accumulation Point (SAP) for hazardous waste.
- Step 2 Used filters will be placed in containers provided.

  Containers will be closed except when adding or removing
- Step 3 Mask filters must be separated by type (Green/Black).
- Step 4 When containers are filled, schedule appointment at PPOC

  HazWaste pick up. Then transport the items in a military

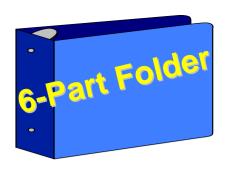
  vehicle at the scheduled time
- Step 5 Bring chain of custody (Part 6) of 6 part folder when turning in. PPOC personnel will sign showing acceptance.
- NOTE: SAP Containers are reusable and property of the government. Continue to use the container and do not remove from unit location unless they are turned in to PPOC
- NOTE: SAP operations require annual training; contact <u>Environmental Division Hazardous Waste</u> to schedule training.

If the unit is deployed for training or mobilized for a period greater than 10 days, the SAP must be closed by memo to the Environmental Division.



Protective Mask filters





#### **PARTI**

#### **Site Certification and Admin**

Commander/Director Memo Site Specific Drawing HW Program Manager Memo EQO Certificate HW Operator Certificate Operators Training Roster Deployment Memos (Military)

#### **PART II**

### FTCKY Hazmat Inventory Form

Products and waste within 50 feet of the site

#### **PART III**

### Product Material Safety Data Sheets (MSDS's)

Insure there are no compatibility Issues at the site

MSDS Safety Information

Handling and Disposal

Reactivity Data

**Item Description Information** 

Fire & Explosive Hazard Information

**Ecological Information** 

Ingredients

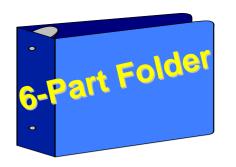
**Control Measures** 

**MSDS Transport Information** 

Health Hazards Data

Physical and Chemical Properties





#### **PART IV**

**Waste Profiles** 

Generator knowledge or analysis of process wastes to ensure proper manifesting to the Treatment, Storage and Disposal Facility (TSDF)

#### **PART V**

### Site Inspections (On file for three years)

Weekly operator inspections, monthly environmental division Inspection, and regulatory inspections

#### **PART VI**

### Chain of Custody/Waste Turn-In Log

Utilize chain of custody turn-in Log or DD Form 1348-1a for turn-in of Hazardous waste.



Military units: MEDDAC/DENTAC-BACH, veterinarian, and all dental clinics.

**Government Services: ALMD, ESRA, IMD, and ITO.** 

**Contractors:** DYNCORP, J&J Maintenance, and any other outside contractor.

\*\* There may be special occasions when it may be requested for any unit or activity to provide a DD form 1348-1a.



### **Cradle-to-Grave Management**

Record Keeping (40 CFR Part 262.40): Show the regulator what unit/activity generated the hazardous waste and when it was turned-in to the 90-Yard for final disposition. Generators within the 101<sup>st</sup> Airborne Division (AASLT) will utilize the Waste Turn-In Log. Tenant unit/activity will utilize a DD Form 1348-1a as proof of turn-in or chain-of-custody of the hazardous waste.

The hazardous waste program manager will keep a copy of each manifest signed for three years from the date the waste was accepted by the initial transporter to the Treatment, Storage, or Disposal Facility (TSDF).





# Satellite Accumulation Points / Used Oil Sites What's wrong?



















# Satellite Accumulation Point Operations Mishandling/Improper Disposal of hazardous materials and hazardous wastes





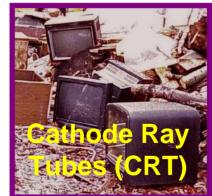


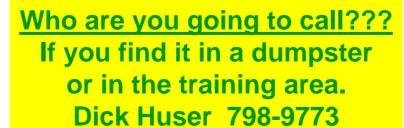




















### **Universal Waste**

40 CFR Part 273

Alternative management standards for common wastes in lieu of regulations under 40 CFR Parts 260-272.

Common hazardous wastes such as batteries, recalled or discontinued pesticides, mercury containing items (thermostat ampoules, thermometers, switches, etc), and mercury containing bulbs or lamps that are generated, stored, and eventually recycled or reclaimed off-site.

Accumulate universal waste for up to one year from the date the waste was generated or received from another handler.





### **Only Authorized Locations**

BACH, J&J Maintenance, Bldg. 651, Room 1BJ03, off the loading dock.

Troop Self-Help, Bldg. 862 AAFES Main Exchange, Bldg. 2840 Boeing Sikorsky, Bldg. 7281

Do not place used lamps in the refuse dumpsters.

#### Date the label Keep the container closed









### **Used Oil (POL) Accumulation**



Used oil is a recyclable waste. All Used POL and containers must be metal drums.

What can be accumulated in the Used Oil container?

<u>Motor oils, Diesel fuel, Kerosene, JP-8, Transmission fluid, Hydraulic fluid,</u>

<u>Brake fluid, Heating oil and Synthetic oil.</u> \* All can be accumulated in the same

container\*

Mogas, unleaded fuels, and Coleman white fuel cannot be accumulated with the used oil but may be accumulated separately as a Recyclable Fuel. Units/Activities with Recyclable Fuel in 5 gallon fuel cans will transport them to the PPOC for recycling.



When you mix anything other than the approved items with Used POL, you may turn a recyclable material into a hazardous waste.

Do not mix used solvents with the Used Oil.

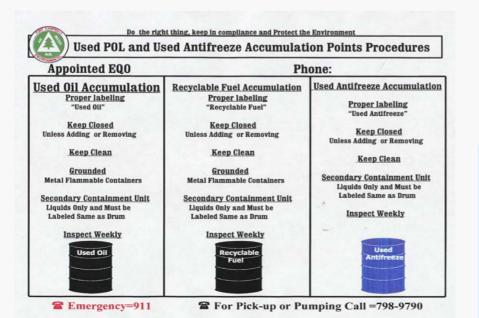


## Used Oil (POL) Accumulation





- Must be labeled "Used Oil."
- EQO's must train all personnel handling POL products.
- All accumulation drums must be metal except for Antifreeze.







**USED OIL** 

RECYCLABLE FUEL

No Smoking Within 50'



### Schedule turn-in or drop-off appointment for Hazardous/Universal Wastes

798-9790





## Waste Minimization

**Executive Order** 

Product substitution Inventory control Recycling Process change Life cycle analysis Better management



EFRIGANT









**Environmental Division POC's** 

Bill Baggett (Hazardous Waste Manager)

Allen Gilbert (Compliance)

Inspectors (SD)
Building 2186

798-9786

798-9763

798-9105